

TEMPERATURE SENSOR SCHEME

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Abstract

The present invention is a random access memory device including a temperature sensing circuit, and method of using the same. The temperature sensing circuit includes a first and a second comparator. Each comparator is configured to receive a sense voltage that is indicative of a sensed temperature.

10 A first temperature reference circuit having a plurality of first reference voltages is coupled to the first comparator. The plurality of first reference voltages are alternately compared with the sense voltage. A second temperature reference circuit having a plurality of second reference voltages is coupled to the second comparator. The plurality of second reference voltages are alternately compared

15 with the sense voltage. A first trimmer is coupled to the first temperature reference circuit. A second trimmer coupled to the second temperature reference circuit. The first and second trimmers are independently adjustable to adjust the plurality of first and second reference voltages.